A VEHICLE SUSPENSION CONTROL SYSTEM.

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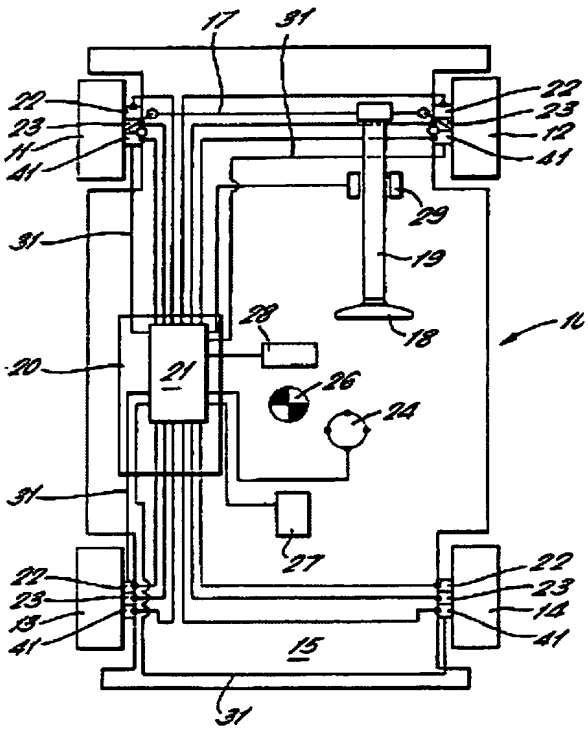
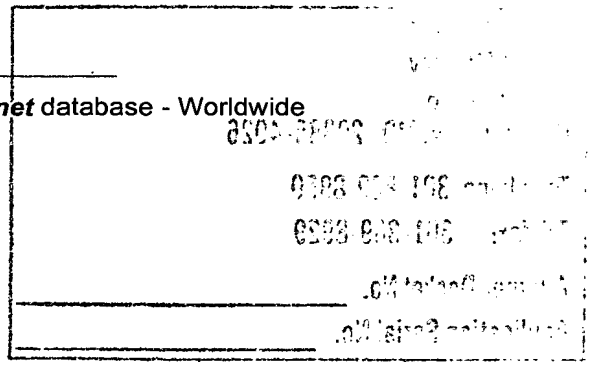
PCT No. PCT/GB90/00690 Sec. 371 Date Dec. 19, 1991 Sec. 102(e) Date Dec. 19, 1991 PCT Filed May 4, 1990 PCT Pub. No. WO90/13448 PCT Pub. Date Nov. 15, 1990.A vehicle suspension control system comprises an actuator device for connection between a sprung mass of a vehicle and unsprung masses of the vehicle. A suspension system further comprises a device for determining forces acting between the sprung mass and the unsprung masses and for producing signals proportional to said forces, the device for determining forces comprising a first sensor device operable to produce a first set of signals comprising signals indicative of the loads in load paths between the unsprung masses and the sprung mass and a second sensor device operable to produce a second set of signals which includes signals indicative of the lateral acceleration of the vehicle, the longitudinal acceleration of the vehicle, and the yaw rate of the vehicle; a device for processing the second set of signals to produce steady state force signals indicative of steady state input loads on the vehicle including loads arising from cornering and acceleration/deceleration of the vehicle and loads carried by the vehicle; a device for combining the steady state force signals with the first set of signals to produce dynamic force signals indicative of dynamic inputs to the vehicle, the dynamic inputs including forces arising due to purgibations on a road below the vehicle. The control system further includes a first device for processing the steady state force signals to produce first control signals for controlling the actuator device, or by the first control signals act to control the actuator device to maintain the orientation of the sprung mass relative to a reference plane constant throughout vehicle cornering and acceleration/deceleration and constant with changing interior loads; and a second device for processing the dynamic force signals to produce second control signals for controlling the actuator means, whereby the



second control signals act to control the actuator device to substantially eliminate the transmission of dynamic forces from the unsprung masses to the sprung mass.



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